REMARKS

Applicant thanks the Examiner for the thorough consideration given the present application. Claims 1-23 are currently being prosecuted. The Examiner is respectfully requested to reconsider his rejections in view of the Remarks as set forth below.

Entry of Amendment

It is respectfully requested that the present Amendment should be entered into the official file in view of the fact that the amendments to the claims automatically place the application into condition for allowance. Alternatively, if the Examiner does not agree that the application is in condition for allowance, it is respectfully requested that the present Amendment should be entered for the purpose of appeal. The present amendments help to further describe the present invention. Accordingly, Applicant submits that entry of the Amendment and full consideration thereof is appropriate.

Rejection Under 35 USC 102

Claims 1-23 stand rejected as being anticipated by Gordon et al. (U.S. Patent 6,481,012). This rejection is respectfully traversed.

Applicant submits that the present invention is completely different from the device shown in Gordon et al. The present invention is a method and apparatus which allows a live broadcast picture and a time shifted picture to be viewed at the same time. As shown in Fig. 1, in Box 10, a plurality of live streams from different broadcasts can be viewed at the same time using the PIP screen request. The user can then select the particular stream which is most interesting. The user can also store this stream for later viewing as indicated in Box 20. When the viewer wishes to watch the time shifted version of the selected broadcast, it can either be done on full screen or done using a PIP screen conversion so that the time shifted broadcast shares the picture with current live broadcasts as shown in Box 30. While the general concept of the PIP screen showing multiple broadcasts at once and the concept of time shifting by storing a broadcast is known, the present invention combines these various aspects by allowing the time shifted program to be viewed on the PIP screen along with broadcasts that are currently live. This is not seen in the prior art.

The present invention performs this function by utilizing the apparatus shown in Fig. 2. The demultiplexer 50 receives inputs both from an analogue broadcast which is encoded and directly from a digital broadcast. The output of the demultiplexer is fed to a PID filter section which recognizes the various individual packets. Selected packets can then be sent to the storage section

interface 70 so that those signals are stored for later use. The broadcasts

which are selected for a live presentation are forwarded from the PID filter

section directly to the remux section 80. When stored signals are desired, they

are recovered from storage and also forwarded by the storage section interface

to the remux section. Applicant submits that this apparatus is also not seen in

the prior art.

Regarding claim 1, the Examiner states that Gordon et al. shows the

display of real time broadcast programs received from a cable television. The

Examiner refers to programs 1004 and 1008. These elements are found in Fig.

10, rather than Fig. 1 as indicated by the Examiner. Applicant also questions

whether the indicated programs are in fact broadcast programs. Col. 11, lines

19-30 describe reference numerals 1004, 1006 and 1008 as steps rather than

broadcast programs. Thus, in step 1004, the slices are scanned to intersperse

the skipped slices with the video slices. At step 1008, the bit steam has the

skipped guide and video slices distributed uniformly throughout the transport

stream. Reference 1006 is described as a bit steam. Applicant submits that

none of these are broadcast programs on a cable television.

It should be remembered that the Gordon et al. arrangement is designed

to compress data, such as a program guide by slicing the various data streams

and interspersing them. Also, in situations where an error is discovered,

various slices can be used to reconstruct damaged slices. This in no way relates to the present situation of using stored broadcast programs along with live broadcast programs in a PIP screen arrangement.

The Examiner also states that Fig. 14 of Gordon et al. shows a memory 1476 which stores the program that is selected to be stored. However, Col. 13, line 64 points out that software routines are stored in memory 1476. It should be remembered that controller 1470 in which memory 1476 occurs is used to control the processing of the data stream and is not involved with the storage of entire broadcast programs for later use. Accordingly, Applicant submits that the Examiner's reference to memory 1476 is in error.

The Examiner also refers to the third displaced step of displaying the PIP structure on the screen by referring to Fig. 27. However, this arrangement does not show the simultaneous display of a stored signal along with a live broadcast program. Applicant submits that the Examiner is incorrect in describing the Gordon et al. device in this regard.

Thus, Applicant submits that claim 1 is allowable since the Gordon et al. reference does not involve the three display steps as presently described. In particular, the reference does not describe the concept of selecting one live broadcast to be stored and then playing the stored broadcast at the same time through a PIP structure with current live broadcast programs. This concept is

not seen in the reference in any form nor would it be obvious over the arrangement shown in Gordon et al. Applicant submits that the Gordon device shows no more in this regard than other general prior art which involves a PIP structure. Accordingly, Applicant submits that claim 1 is allowable.

Claims 2 and 3 depend from Claim 1 and as such are also considered to be allowable. In addition, these two claims further describe other possible steps in the third display step. Accordingly, these claims are considered to be additionally allowable.

Claim 4 is an apparatus claim describing the apparatus shown in Fig. 2. In regard to the encoding section, the Examiner states that Gordon et al. shows an encoding unit 216 in Fig. 2. However, this encoding unit is used at the transmission end of the cable and not as part of the apparatus at the user's location.

The Examiner points out that Fig. 14 shows a demux section for inspecting one of the analog broadcasting signal and a digital broadcasting signal input through the network. However, the demux 1430 does not specifically select from an encoded analog signal and a digital signal, but rather receives only one signal at a time from the demodulator 1420.

The Examiner states that the packet identifier filter section is taught by filter 1404 in Fig. 14 of the reference. However, the function of this filter is described at Col. 14, line 27 of the reference which state that the filter is utilized to filter the undesired PIDs and retrieve the desired PIDs from the transport stream. It does not indicate that any of the packets are selected for recording as required in claim 4.

Concerning the storage section interface, the Examiner refers to memory 1476. As pointed out above, this memory stores software routines and not broadcast programs. Further, claim 4 states that the interface enables the stream packet which is filtered through the PID filter section to be stored with desired information added thereto. It appears that memory 1476 does not receive the stream packet from the filter either but instead is only involved with the control function of controller 1470.

Concerning the remux section, the Examiner has referred to element 2506 in Fig. 25. However, this figure does not make clear its relationship to the various elements shown in Fig. 14. Applicant submits that the Examiner is referring to various figures of the reference which show different features in an attempt to meet the various parts of the present claims. However, Applicant submits that the Examiner's choice follows no logical pattern since he appears to be merely picking individual elements at random from the various figures.

Applicants submit that such a combination of pieces would not be workable since they are being taken from various parts of the overall apparatus and are not necessarily designed to produce an effect as the present invention is. Accordingly, Applicant submits that claim 4 is not anticipated by Gordon et al. and that this claim is allowable.

Claims 5-8 depend from claim 4 and as such are also considered to be allowable. In addition, these claims recite other features of the invention which make them additionally allowable. In particular, these claims recite various parts of the apparatus as being either enabled or disabled during different times. The Gordon et al. reference does not show any such feature and accordingly, these claims are considered to be additionally allowable.

Claim 9 is another independent apparatus claim and is allowable for similar reasons recited above in regard claim 4. In particular, Applicant submits that the Gordon et al. reference does not show a packet identifier filter which separates transport streams for a time shifted display nor does it show the storage interface for accessing stored transport streams and for selectively outputting access streams as time shifted transport streams. Applicant also submits that Gordon et al. does not show a remultiplexer which simultaneously outputs one of the live transport streams and the time shifted

transport stream from storage in a picture-in-picture function. Accordingly, Applicant submits that claim 9 is likewise allowable.

Claims 10-18 depend from claim 9 and as such are also considered to be allowable. In addition, these claims recite other features of the invention which make them additionally allowable.

Claim 19 describes a digital television supporting a time shifted PIP display having a demultiplexer, a packet identifier filter, a storage interface, a remultiplexer and a display device. Applicant submits that this claim is also allowable for similar reasons presented above in regard to claims 4 and 9. Applicant submits that the Gordon et al. reference does not show a demultiplexer having a plurality of input terminals receiving at least one analog signal and at least one digital signal. Instead, the demultiplexer of Gordon et al. has only a single input. Also, this input does not provide a choice between analog and digital signals. Further, the packet identifier filter of Gordon et al. does not separate a transport stream which is for a time shifted display. Further, the Gordon et al. does not show a storage interface for storing a separated transport stream, for accessing at least one stored transport stream and for selectively outputting the accessed transport streams of time shifted transport stream. Further, Gordon et al. does not show a remultiplexer outputting one of a live transport stream from the filter or a time shifted

transport stream from the storage interface. Accordingly, Applicant submits that claim 19 is likewise allowable.

Claims 20-23 depend from claim 19 and as such are also considered to be allowable. In addition, each of these claims recite other features which make them additionally allowable. Each of these claims refer to various elements which are either enabled or disabled at different times. Applicant submit that these features are not shown in Gordon et al.
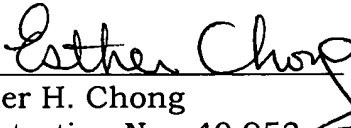
By way of the present Amendment, Applicant has further amended the independent claims in order to better describe the invention. Thus, claim 1 has been amended to refer to one of the live broadcasting programs and also indicated that it is the time shifted broadcasting program of the second display step. Claim 4 has likewise been amended to point out that the remux section simultaneously outputs at least one of the packets transmitted for live broadcast or the time shifted stream packets read out from the storage device. Claims 9 and 19 have been amended to make it clear that the remultiplexer simultaneously outputs the line transport stream and the time shifted time shifted transport stream from storage. Applicant submits that these changes help to define the invention and further make it clear that the claims are allowable over Gordon et al.

Conclusion

In view of the above remarks, it is believed that the claims clearly distinguish over the patents relied on by the Examiner. In view of this, reconsideration of the rejection and allowance of all of the claims are respectfully requested.

Dated: October 7, 2005   Respectfully submitted,

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